

P a t e n t c l a i m s

1.

A device for recognising a container, such as a bottle or a can, comprising a camera and
5 light emission means (1, 2) arranged for imaging a selected portion of the container (3),
said camera and light emission means being connected to a processor or the like adapted
for recognition, based on a camera-recorded image, of special features related to the
container, characterised in that the imaging of the container is carried out via an
assembly of mirror faces (5, 6, 7, 8) which in pairs are positioned relative to one another
10 in such manner that two areas along the longitudinal direction of the container (3),
optionally including one or both end faces, are imaged simultaneously by the camera
(1), the mirror faces in respective pairs facing each other and being positioned on the
same side of the optical axis of the camera (1), with one of the mirror faces (5, 7)
adjacent to the optical axis, and that during the imaging process the camera is directed
15 towards the mirror faces adjacent to the optical axis, in which the two areas of the
container are shown as a respective mirror image in the respective mirror face.

2.

A device according to claim 1, characterised in that the line of intersection between the
20 mirror faces (5, 7) adjacent to the optical axis of the camera is essentially perpendicular
to the optical axis, these mirror faces being positioned symmetrically and directed in the
opposite direction to each other.

3.

A device according to claim 2, characterised in that the mirror faces (5, 7) adjacent the
25 optical axis of the camera are so positioned that one of their sides edges meet.

4.

A device according to claim 2, characterised in that the mirror faces (5, 7) adjacent to
30 the optical axis of the camera are offset relative to each other along the optical axis.

5.

A device according to any one of the preceding claims, characterised in that the mirror
surfaces (5, 6, 7, 8) in each pair are positioned obliquely relative to each other.

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6.

A device according to any of the preceding claims, characterised in that the

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imaging is carried out when the container (3) is on a conveyor (4) provided in a reverse vending machine for beverage containers.

7.

- 5 A device according to any one of the preceding claims, characterised in that the processor comprises a comparator adapted to recognise, on the basis of the image selected by the processor, the respective areas along the longitudinal direction of the container (3) on comparison with a reference archive.